

IN THE CLAIMS:

Please amend the claims as follows:

1. (Withdrawn) A high efficiency burner for over-cladding, which heats an optical fiber pre-form, said burner comprising:

burner covers;

burner bodies arranged between the burner covers; and

fuel dischargers arranged between said burner bodies in at least two rows and being divided by a partition.

2. (Previously Amended) The apparatus according to Claim 8, wherein the burner includes burners bodies arranged between burner covers, said burner bodies are operable independently of each other.

3. (Previously Amended) The apparatus according to Claim 8, further comprising mass flow controllers for controlling a flow of gas to each respective row of said fuel dischargers.

4. (Previously Amended) The apparatus according to Claim 3, wherein each individual mass flow controller is operable independently.

5. (Previously Amended) The apparatus of Claim 3, wherein the mass flow of gas is oxygen and hydrogen gas.

6. 6. (Previously Amended) The apparatus of Claim 3, wherein the mass flow of gas is LPG or butane gas.

7. (Previously Amended) The apparatus of Claim 8, wherein the fuel dischargers include an oxygen discharger and a hydrogen discharger.

8. (Currently Amended) An apparatus for over-cladding a large diameter optical fiber pre-form, which performs an over-cladding on an optical fiber pre-form with a quartz tube, comprising:

upper and lower fixing chucks mounted on respective upper and lower sides of a tower;

a handle rod connected at a first end to the upper fixing chuck;

a first optical fiber pre-form being connected at one end to a second end of the handle rod so,

a supplementary support quartz tube connected at a first end to the lower fixing chuck and connected at a second end connected to another end of the first optical fiber pre-form;

a second quartz tube inserted ~~into~~ around the first optical fiber pre-form;
and

a burner arranged between the second end of the handle rod and the lower fixing chuck, said burner comprising at least two rows of fuel dischargers including an

oxygen discharger and a hydrogen discharger, and said at least two rows of fuel dischargers being divided by a partition; wherein

the burner is movable along the length of the tube, and on a respective each side of the partition a collective temperature of the rows of fuel dischargers is variably independent of the other side of the partition.

9. (Currently Amended) The apparatus as recited in claim 8, wherein a first respective end ~~respective ends~~ of the burner ~~are~~ is operable independently in a hot zone when sealing a top or cutting a bottom of the second quartz tube, whereas a second respective end is off.

10. (Original) The apparatus according to claim 8, wherein each row of fuel dischargers includes an individual mass flow controller.

11. (Original) The apparatus as recited in claim 10, wherein the individual mass flow controllers are operable on an independent basis, respectively.

12. (Previously Amended) The apparatus recited in claim 10, wherein the individual mass flow controllers are flow meters.